

REMARKS

This is in response to the Office Action mailed on July 29, 2011. Claims 1, 4, 7-9, 13-17, 20-21, 29-33, and 44-51 were pending in that action and all claims were rejected. With the present response, claims 1, 14-17, 32-33, and 46-48 are amended, and the remaining claims are unchanged. Consideration and allowance of all pending claims are respectfully solicited in light of the following comments.

35 USC §101 Rejection

On page 3 of the Office Action, the Examiner rejected claim 32 under 35 USC §101 as being directed to non-statutory subject matter. Applicant has amended claim 32 such that the preamble simply recites “a method” instead of reciting “a computer program storage medium.” Applicant respectfully contends that amended claim 32 is clearly tied to a machine, and thus satisfies the requirements of 35 USC §101. For instance, amended claim 32 recites a number of specific hardware devices such as a camera, an accelerometer, a plurality of environmental sensors, a shutter control line, and a wide-angle lens. Accordingly, Applicant respectfully contends that amended claim 32 is directed to statutory subject matter, and Applicant respectfully requests that the rejection be withdrawn.

35 USC §103 Rejections

On pages 3-7 of the Office Action, the Examiner rejected claims 1, 4, 8-9, 15, 17, 20, 30-33, and 44-51 under 35 USC §103 as being unpatentable over Lemelson U.S. Pat. No. 4,901,096 (hereinafter “Lemelson”) in view of Ishibashi U.S. Pat. No. 6,558,050 (hereinafter “Ishibashi”). On pages 7-8 of the Office Action, the Examiner rejected claims 13-14 and 29 under 35 USC §103 as being unpatentable over Lemelson in view of Ishibashi and in further view of Grosvenor et al. U.S. Pat. Pub. No. 2003/0025798 (hereinafter “Grosvenor”). On page 8 of the Office Action, the Examiner rejected claim 16 under 35 USC §103 as being unpatentable over Lemelson in view of Ishibashi and in further view of Moultrie, Jr. U.S. Pat. Pub. No. 2002/0159770 (hereinafter “Moultrie”), and on pages 8-9 of the Office Action, the Examiner rejected claim 21 under 35 USC §103 as being unpatentable over Lemelson in view of Ishibashi and in further view of Horimoto U.S. Pat. No. 4,009,943 (hereinafter “Horimoto”). As is discussed below,

Applicant respectfully contends that the claims include limitations and combinations of limitations that are not anticipated by or obvious in view of the cited references. Accordingly, Applicant respectfully contends that the claims are patentable and respectfully requests that the rejections be withdrawn.

Claim 1:

Claim 1 has been amended to recite that “the controller automatically send[s] a signal to a shutter control line to capture an image using the camera based at least in part on a determination that a change in one of the multiple ambient conditions is detected and on a determination that the acceleration of the camera is below a threshold value.”

The claim amendment is well-supported throughout the application as originally filed. The amendment is supported for example by elements 302, 304, 306 in FIG. 3, and by page 7, lines 7-14 of the specification. For instance, page 7, lines 7-14 of the specification states that: “FIG. 3 illustrates a schematic of components 300 in an exemplary recall device. A microcontroller 302 is coupled to control a camera 304 using a shutter control line 306 and a mode control line 308. A signal issued by the microcontroller 302 on the shutter control line 306 triggers an image capture in the camera 304.”

In rejecting claim 1 on page 5 of the Office Action, the Examiner stated that the claimed controller capturing an image is disclosed by column 4, lines 48-49 of Ishibashi. Applicant respectfully contends that amended claim 1 is patentably distinguishable from Ishibashi.

Column 4, lines 48-49 of Ishibashi states that: “After the operation mode is set, a shooting instruction is outputted to the video camera circuit 6.” The Ishibashi shooting instruction is further described in column 4, lines 37-47 of Ishibashi. It states that the operation mode of a camera is switched between either a high power consumption mode or a low power consumption mode based on a result of one of the judgment steps.

Amended claim 1 recites that the controller automatically sends a signal to a shutter control line to capture an image using the camera. Applicant respectfully contends that Ishibashi does not teach, suggest, or provide any motivation to include such features. For instance, Ishibashi does not disclose automatically sending a signal to a shutter control line to capture an

image. Instead, Ishibashi at most only discloses automatically switching a camera between a high power consumption mode and a low power consumption mode. Accordingly, Applicant respectfully contends that amended claim 1 is non-obvious.

For at least the reasons discussed above, Applicant respectfully contends that claim 1 is patentable. Applicant respectfully requests that the rejection be withdrawn and that the claim be allowed.

Claim 17:

Claim 17 has been amended to recite “monitoring ambient temperature, ambient light level, and ambient infrared radiation of an environment of the camera with a plurality of environmental sensors,” “detecting whether a capture condition is satisfied by comparing changes in the ambient temperature, the ambient light level, and the ambient infrared radiation to at least one second threshold value,” and “sending a signal to a shutter control line to capture the image by the camera.”

The claim amendment is well-supported throughout the application as originally filed. The amendment is supported for example by elements 302, 304, 306, 322, 332 in FIG. 3, by page 7, lines 7-14 of the specification, and by page 9, lines 5-14 of the specification. For instance, FIG. 3 shows a recall device 300 having a controller 302 that sends a signal to a camera 304 through a shutter control line 306. FIG. 3 also shows that device 300 may optionally include a light level sensor 332 and a temperature sensor 322. Also for instance, page 9, lines 5-14 of the specification states that other exemplary components for monitoring sensor data include “a passive infrared radiation detector (e.g., a Seiko Passive infrared temperature detector) for detecting humans up to 2.5m from the wearer.”

In rejecting claim 17 on page 4 of the Office Action, the Examiner stated that column 3, lines 5-11 of Lemelson discloses monitoring multiple ambient conditions. Applicant respectfully contends that amended claim 17 is patentably distinguishable from Lemelson.

Column 3, lines 5-11 of Lemelson states that: “the camera shutter 20 [is] operated thereby to open and close during a select time interval as preset or predetermined in accordance with photographing variables defined by signals derived from one or more sensors sensing ambient

light, distance to subject and/or other variables and connected to the microprocessor or computer 11 or an auxilliary microprocessor cooperating therewith.”

In light of the above, Lemelson may arguably under a broad interpretation disclose monitoring multiple ambient conditions. In particular, Lemelson may arguably disclose monitoring ambient light and a distance to a subject. Amended claim 17 on the other hand recites monitoring ambient temperature, ambient light level, and ambient infrared radiation. Lemelson clearly does not disclose this combination of multiple ambient conditions. For instance, Lemelson does not disclose monitoring ambient temperature or ambient infrared radiation.

Additionally, amended claim 17 recites detecting whether a capture condition is satisfied by comparing changes in the ambient temperature, the ambient light level, and the ambient infrared radiation to at least one second threshold value. Applicant respectfully contends that Lemelson does not teach, suggest, or provide any motivation to include these features. For instance, assuming for the sake of argument that Lemelson does monitor at least some ambient conditions, Lemelson does not monitor the ambient conditions to detect a capture condition. Instead, as described in column 2, lines 59-62 of Lemelson, Lemelson monitors the ambient conditions to adjust automatic focus and shutter timing functions.

Furthermore, similar to claim 1, claim 17 has been amended to recite sending a signal to a shutter control line to capture the image by the camera. Accordingly, Applicant respectfully contends that claim 17 is also patentable for the same or similar reasons mentioned above in the claim 1 discussion.

For at least the reasons discussed above, Applicant respectfully contends that claim 17 is patentable. Applicant respectfully requests that the rejection be withdrawn and that the claim be allowed.

Claim 32:

Claim 32 has been amended to recite “detecting whether a capture condition is satisfied by monitoring ambient temperature, ambient light level, and ambient infrared radiation with a plurality of environmental sensors and comparing a change in at least one of the ambient

temperature, the ambient light level, and the ambient infrared radiation to a lower threshold value and to an upper threshold value,” “sending a signal to a shutter control line to capture an image by the camera at least a predefined delay period after detection of the capture condition,” “capturing the image utilizing a wide-angle lens of the camera,” and “removing radial distortion from the captured image to generate a corrected image.”

The claim amendment is well-supported throughout the application as originally filed. The amendment is supported for example by elements 302, 304, 306, 322, 332 in FIG. 3, by page 4, lines 7-10, by page 7, lines 7-14 of the specification, by page 9, lines 5-14 of the specification, and by page 13, lines 5-13 of the specification. For instance, page 13, lines 5-13 of the specification states that: “FIG. 6 illustrates an image 600 captured through a normal lens, an image 602 captured through a fish-eye lens, and a corrected version 604 of the fish-eye image. Using commercially available image editing software, an image captured through the fish-eye lens may be corrected to remove the radial distortion introduced by the fish-eye lens. Coupling the fish-eye image capture with the correction software allows a wearer to capture a maximum amount of environment in an image and to later remove the radial distortion to obtain a relatively normal image. As such, the use of a fish-eye lens is particularly suited to a recall device which captures images with relatively random alignment with the environment.”

In rejecting claim 21 on pages 8-9 of the Office Action, the Examiner stated that a wide-angle lens is disclosed by column 1, lines 11-13 of Horimoto. Applicant respectfully contends that amended claim 32 is patentably distinguishable from Horimoto.

Column 1, lines 11-13 of Horimoto states that: “The advantages of extremely wide angle lens systems, and more particularly, fish eye lens systems are known in the field of photography.” Applicant acknowledges that wide-angle lenses exist. However, Applicant does not believe that the Examiner has provided any factual support for why it would be obvious to include one in the method recited in claim 32. Column 1, lines 55-57 of Horimoto states that its lens “is adapted for use with a compact SLR camera.” Accordingly, the Examiner has only shown that it would be obvious to include a wide-angle lens in a SLR camera or in a method that uses a SLR camera. The Examiner has not shown that wide-angle lenses are known to be used in environments such

as that recited in claim 32 (e.g. in a method that monitors ambient temperature, ambient light level, and ambient infrared radiation).

Additionally, as amended, claim 32 recites removing radial distortion from the captured image to generate a corrected image. Applicant respectfully contends that Horimoto does not teach, suggest, or provide any motivation to include such features. For instance, column 3, lines 35-40 of Horimoto explicitly states that its images do not have distortion (e.g. “The fish eye lens system of the present invention provides an optimized commercial lens by the choice of certain parameters set forth herein to solve the problems of spherical and chromatic aberrations, distortion, and astigmatism that is experienced with a field angle of 180 degree.”). Accordingly, it would not be obvious to modify Horimoto to remove radial distortion from an image, because the images captured by the Horimoto system do not have distortion.

Furthermore, claim 32 has been amended to include limitations the same as or similar to those added to claims 1 and 17. Accordingly, Applicant respectfully contends that claim 32 is also patentable for the same or similar reasons mentioned above in the claim 1 and 17 discussions.

For at least the reasons discussed above, Applicant respectfully contends that claim 32 is patentable. Applicant respectfully requests that the rejection be withdrawn and that the claim be allowed.

Claim 33:

Claim 33 has been amended to recite “a camera that is configured to automatically continuously capture images utilizing a wide-angle lens,” “a plurality of environmental sensors that monitor ambient temperature, ambient light level, and ambient infrared radiation,” and “a controller operably connected to the camera and to the plurality of environmental sensors, the controller sending signals to a shutter control line to capture the images, the controller being configured to automatically save a portion of the images that corresponds to a change being detected in at least one of the ambient temperature, the ambient light level, and the ambient infrared radiation, the controller being configured to automatically delete another portion of the images that corresponds to no change being detected in the at least one of the ambient

temperature, the ambient light level, and the ambient infrared radiation, and the controller removing radial distortion from the saved portion of the images to generate corrected images.”

The claim amendment is well-supported throughout the application as originally filed. The amendment is supported for example by elements 302, 304, 306, 322, 332 in FIG. 3, by page 4, lines 7-10, by page 7, lines 7-14 of the specification, by page 9, lines 5-14 of the specification, by page 12, lines 3-12 of the specification, and by page 13, lines 5-13 of the specification. For instance, page 12, lines 3-12 of the specification states that: “In another implementation, image capture (including video capture) may occur continuously or periodically, even in the absence of a previous capture condition. For example, the recall device detects a stable condition and triggers an image capture to memory. Thereafter, a temporally proximate capture condition is detected so the captured image is maintained in association with the subsequent capture condition. If no temporally proximate capture condition is detected, the captured image may be deleted from memory to manage storage space. In this manner, the environmental conditions existing just prior to a capture event may be captured and efficiently recorded. A similar algorithm may be applied to audio recordings and other sensory data.”

In rejecting claim 33 on page 6 of the Office Action, the Examiner stated that the “camera of Lemelson can continuously capture images if so desired by a user, and the controller can save or delete pictures based on various conditions if so desired by a user. This functional language is an intended use of the device unless the device is somehow claimed to be structurally different, such as by saying the controller and camera are ‘programmed to’ or ‘configured to’ perform the functional language.” Applicant respectfully contends that amended claim 33 is patentably distinguishable from Lemelson.

As amended, claim 33 recites that the camera is configured to automatically continuously capture images, and that the controller is configured to automatically save and delete images. Applicant respectfully contends that Lemelson does not teach, suggest, or provide any motivation to include such features. In Lemelson, the camera is operated completely manually. Any image capturing, saving, or deleting is initiated by a user. For instance, the Lemelson abstract states that: “In one form, a push-button or lever operated mechanism effects shutter opening when

actuated by a finger of the hand wherein such shutter opening is prevented by a lock or braking mechanism which is activated by a signal generated when camera movement is detected by a motion sensor” (emphasis added). Accordingly, Applicant respectfully contends that amended claim 33 is non-obvious in view of Lemelson.

Additionally, claim 33 has been amended to include limitations the same as or similar to those added to claims 1, 17, and 32. Applicant therefore respectfully contends that claim 33 is also patentable for the same or similar reasons mentioned above in the claim 1, 17, and 32 discussions.

For at least the reasons discussed above, Applicant respectfully contends that claim 33 is patentable. Applicant respectfully requests that the rejection be withdrawn and that the claim be allowed.

Claims 4, 7-9, 13-16, 20-21, 29-31, and 44-51:

Claims 4, 7-9, 13-16, 20-21, 29-31, and 44-51 are dependent claims. Applicant respectfully contends that the claims are patentable at least based on their dependencies upon the patentable independent claims discussed above. Additionally, in light of the amendments to the independent claims, each of the dependent claims now recites a new combination of limitations that has not been previously considered by the Examiner. Applicant respectfully contends that the new combinations are not taught or suggested by the cited references, and that the claims are therefore patentable based upon their own merits. Applicant respectfully requests that the rejections be withdrawn and that the claims be allowed.

Conclusion

It is respectfully submitted that all claims are now in condition for allowance. Accordingly, consideration and allowance of all pending claims are respectfully solicited. Applicant also respectfully requests that in the event that the Examiner does not find the independent claims patentable, that the Examiner consider allowance of one or more of the dependent claims. The Director is authorized to charge any fee deficiency required by this paper or credit any overpayment to Deposit Account No. 23-1123.

Respectfully submitted,

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